



EPA Superfund Innovative Technology Evaluation Program:

An Opportunity For Collaboration

NELP Fact Sheet No. 1

Success Stories

November 1994

ABSTRACT

This fact sheet is one in a series that shares information on successful technologies and strategies applied at NAS North Island through the Navy Environmental Leadership Program (NELP). The purpose of the fact sheet is to make information on successes available to all Navy installations, with the intent that other Navy installations will employ tested technologies and strategies for cleanup, compliance, pollution prevention (P2), and conservation.

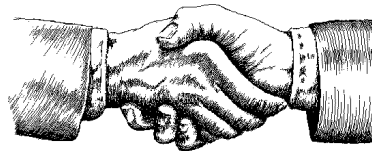
BACKGROUND

On October 23, 1993, the Secretary of the Navy approved the NELP for implementation at Naval Air Station (NAS) North Island and Naval Station Mayport in Florida. NELP was established as a Navy initiative to focus on finding new and innovative ways to manage environmental programs at Navy bases. Under NELP, NAS North Island is identifying and demonstrating innovative cleanup, compliance, P2, and conservation technologies that will have broad application Navy-wide at reduced costs.

Effective teaming with other environmental programs is an essential element of the NELP initiative. One example of teaming with other environmental programs is NAS North Island's relationship with the U.S. Environmental Protection Agency (EPA) Superfund Innovative Technology Evaluation (SITE) program.

THE COLLABORATIVE EFFORT

NAS North Island's partnership with the U.S. EPA SITE program has been successful in contributing to the NELP mission. The EPA established SITE as a formal program in 1986 to accelerate the development, demonstration, and use of new or innovative technologies to be used in site cleanups. NAS North Island has learned that demonstrating innovative cleanup technologies in cooperation with the EPA SITE program can be a valuable element in the Navy Installation



Restoration (IR) Program. NAS North Island provided a test site for a SITE technology (known as Terra-Kleen) which removed polychlorinated biphenyls (PCBs) in soil. The demonstration was successful, and the technology will be used for time critical removal actions at three IR sites on the base. The success of that collaborative effort has led to a second demonstration on contaminated groundwater at another IR site using the Zenon crossflow pervaporation technology.

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Technology demonstrations under the SITE program focus on the pilot stage or field-scale stage of operation. Typically the technologies EPA selects under the SITE program will already have been tested at the laboratory- or bench-scale level. The main objective of the demonstration program is to develop reliable performance and cost data on the innovative technology. EPA needs suitable sites to achieve the SITE program goal of demonstrating innovative technologies.

BENEFITS TO THE NAVY

Through the SITE program, cooperative agreements between the technology developer, the EPA, and the Navy offer several benefits to the Navy:

- provides for cost-sharing of technology demonstrations
- promotes and enhances technology development through field-scale testing at actual Navy sites
- enhances the Navy's position as a steward of the environment
- promotes cooperative relationships with regulatory agencies and technology developers
- helps find solutions to Navy cleanup problems

Cooperative agreements between EPA, the Navy, and the developer set forth responsibilities for conducting the demonstration and evaluating the technology. Generally, EPA is responsible for project planning, waste collection and pretreatment (if needed), sampling and analysis, quality assurance and quality control, evaluating technology performance, preparing reports, and disseminating information. The Navy is typically responsible for providing utilities, any site preparation, and the contracting vehicle with the developer. The contract between the Navy and the developer usually specifies cost sharing conditions. These costs may include those related to transporting equipment to the site, operating the equipment on site during the demonstration, and removing the equipment from the site. Developers are responsible for providing sufficient information on their technology for demonstration plan development, and operating their innovative systems at selected sites.



ing sufficient information on their technology for demonstration plan development, and operating their innovative systems at selected sites.

INITIATING A NAVY-EPA SITE RELATIONSHIP

The Navy may approach EPA as follows:

If the Navy has identified a site at their installation that potentially matches a SITE technology, then the following steps should be taken:

- Identify the potential SITE technology.
- EPA publishes an annual document called Superfund Innovative Technology Evaluation Program, Technology Profiles. The most current edition is referenced as EPA/540/R-93/526. For a copy of this publication, contact the Office of Research and Development (ORD) Publications at the following address:



26 West Martin Luther King Drive (G72)
Cincinnati, Ohio 45268
513-569-7562

- Contact the developer of the technology to discuss the applicability of the technology at your Navy installation.
- If it is determined that the technology and the Navy site are a good match, the Navy should contact the EPA SITE demonstration program and propose this arrangement.
- If the EPA shows interest in the arrangement, the Navy should then send basic site characterization information to the EPA-appointed SITE program contact.
- Subsequent steps may include a site visit by EPA and the developer to collect samples for waste characterization and treatability studies in the laboratory.

If the Navy has identified a site at their installation and is seeking an innovative solution, the following steps should be taken.

- The Navy should contact the EPA SITE demonstration program, and propose this arrangement.

- If the EPA shows interest in the arrangement, the Navy should send detailed information on site characteristics and treatment goals, to the EPA-appointed SITE program contact.
- EPA would then contact the Navy when a matching technology was identified.

If the Navy has identified a site at their installation, as well as a matching technology that is not in the SITE demonstration program, then the following steps should be taken:

- The Navy, using developer input, should first prepare a project proposal that outlines the objectives of the treatment and the benefits to be gained by the SITE program.
- The Navy would then contact the EPA SITE demonstration program and propose this arrangement.
- If the EPA has an interest in evaluating the technology for other potential applications, the Navy would have the developer apply to the demonstration program.

Once the Navy-EPA SITE relationship is established, the Navy would do the following to formally establish a SITE partnership:

- meet with the EPA and technology developer to establish cost sharing responsibilities, and the Plan of Action and Milestones (POA&M).
- meet with local/state regulators to address permitting issues and applications for variances
- write a sole source contract with the technology developer
- negotiate a contract



Then the SITE demonstration process begins. This process typically consists of five steps:

1. preparing a Demonstration Plan that includes the test plan, sampling and analysis plan, quality assurance project plan, and health and safety plan
2. submitting copies of plans, and permit and variance applications to local and state regulators
3. performing community relations activities

4. conducting the demonstration (ranging in length from days to months)
5. documenting results in an Innovative Technology Evaluation Report, a Technology Capsule, other demonstration documents, and a demonstration video tape

EPA and its SITE program contractors conduct these activities. The Navy reviews and approves all plans, and provides coordination as required. During this process, the Navy receives EPA reviews of the performance of the technology, as well as access to all the data generated. Partnering with EPA has been a successful strategy at NAS North Island, and could be successful at your Navy installation as well.

WHO TO CONTACT

For more information on Navy EFD/EFA participation in the SITE demonstration program, contact:

Lt. Jeff Johnston
Southwest Division
Naval Facilities Engineering Command
1220 Pacific Highway
San Diego, CA 92132-5181
(619) 532-3866
FAX (619) 532-1242

For more information on Navy shore activity participation in the SITE Demonstration Program, contact:

Mike Magee
Staff Civil Engineer (Code 18E.MM)
Naval Air Station North Island
P.O. Box 357040
San Diego, California 92135-7040
(619) 545-1125
FAX (619) 545-1001
E-Mail: (mageem@osiris.cso.uiuc.edu)

To inquire about the EPA SITE Demonstration Program, contact:

John Martin or Annette Gatchett
U.S. Environmental Protection Agency
26 West Martin Luther King Drive
Cincinnati, Ohio 45268
(513) 569-7758
FAX (513) 569-7620

MAILING LIST

If you would like to be included or change your address on the mailing list for the NELP fact sheets; please fill out, detach, and fax or mail this form to NAS North Island at the address below.

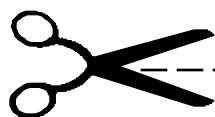
Staff Civil Engineer (Code 18E.MM)
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INSIDE: NELP FACT SHEET NO. 1
Hosting a SITE Demonstration at
your Navy Installation



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